



# evolve

LEADERS IN GENETIC FERTILITY SCREENING™



# EVOLVE FAMILYREADY™

GENETIC CARRIER SCREEN

A Simple Pre-Pregnancy  
Checkup Every Couple  
Should Consider

SCREEN TODAY. PROTECT TOMORROW.

# PROTECT THE HEALTH OF YOUR FUTURE CHILDREN BY KNOWING YOUR GENETIC RISKS, TODAY!

Carrier Screening is a type of genetic testing that can determine if individuals are carriers of genetic mutations that can lead to serious inherited recessive disorders or X-linked disorders in their children. Anyone can be a carrier of a genetic disorder. Carrier screening is important to consider before a pregnancy, either as a pre-IVF or preconception genetic screen.

**24%** of the general population is a carrier of a genetic disorder.

**Having no family history of a genetic disorder does not eliminate your risk.**

**80%** of children born with a genetic recessive disorder were born to parents who had no family history.

**Ethnicity may increase your chance to be a carrier.**

**43%** of individuals of Ashkenazi Jewish ethnicity are carriers of a genetic disorder.

Our ethnicities can influence the risk to be a carrier since some genetic disorders are more common in certain populations. As the chart below demonstrates, your ethnicity alone can put you at an increased risk of being a carrier of a severe genetic disorder.

POPULATION	GENETIC DISORDER	CARRIER FREQUENCY
African American	Beta-Thalassemia Cystic Fibrosis Sickle Cell Disease	1 in 75 1 in 61 1 in 10
Ashkenazi Jewish	Cystic Fibrosis Gaucher Disease Tay-Sachs Disease	1 in 24 1 in 15 1 in 25
Asian	Alpha-Thalassemia Beta-Thalassemia Cystic Fibrosis	1 in 20 1 in 50 1 in 94
European	Cystic Fibrosis	1 in 25
French Canadian	Tay-Sachs Disease	1 in 30
Hispanic/Latino	Beta-Thalassemia Cystic Fibrosis	1 in 40 1 in 58
Mediterranean	Beta-Thalassemia Cystic Fibrosis	1 in 25 1 in 29

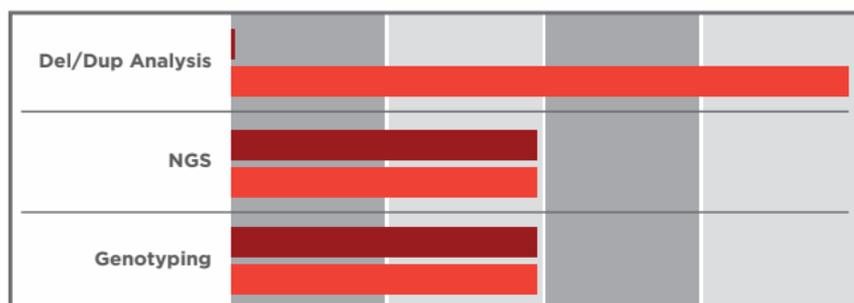
# EVOLVE FAMILYREADY™ CARRIER SCREEN IS THE RIGHT CHOICE!

Accurate & Comprehensive Genetic Screening for the most relevant disorders amongst all ethnic groups. Cutting edge technologies, including advanced NGS, for the most in-depth screening.

- **Testing for 720 Variants in 148 genes**
- **Deletion/Duplication Analysis for CFTR, DMD, HBA1, HBA2, and MECP2**
- **Spinal Muscular Atrophy (SMA) and Fragile X Syndrome Analysis**

## The most complete genetic screening

Using genotyping, next generation sequencing AND deletion/duplication analysis, the FamilyReady™ Carrier Screen provides the most complete, in-depth genetic test for carrier screening available with accurate data proven results.



■ EvolveGene®  
■ Others\*

\*Data as per recent marketing materials. "Other" refers to laboratories offering similar carrier screens.

The disorders that EvolveGene® screens for can be categorized into three groups:

- 1. May be managed early in life and are treatable such as PKU and Wilson Disease.**
- 2. Life-threatening with no curative treatments such as Cystic Fibrosis and Duchenne Muscular Dystrophy.**
- 3. Chronic and require lifelong management such as Sickle Cell Anemia and Fragile X Syndrome.**

The entire list of disorders can be found at [www.EvolveGene.com](http://www.EvolveGene.com).

# HOW IT WORKS

## Simple, Fast and Reliable

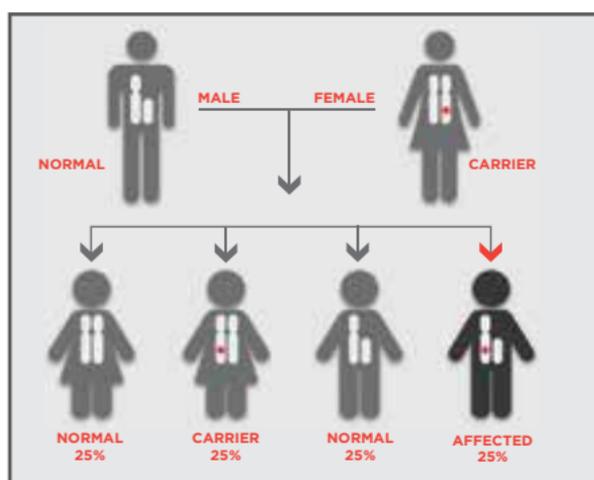
Evolve FamilyReady™ Carrier Screen is performed through either a simple saliva or blood sample. We look for changes, or mutations, in specific genes in your DNA so we can inform you of any genetic disorders your future children may be at risk of inheriting.

## We inherit our genes from our parents

We all inherit one gene from our mother and one gene from our father. Genes code for the proteins that make us who we are and give us life. Genes determine everything from our hair color and eye color to whether our hair will be curly or straight. However, diseases can also be passed through our genes.

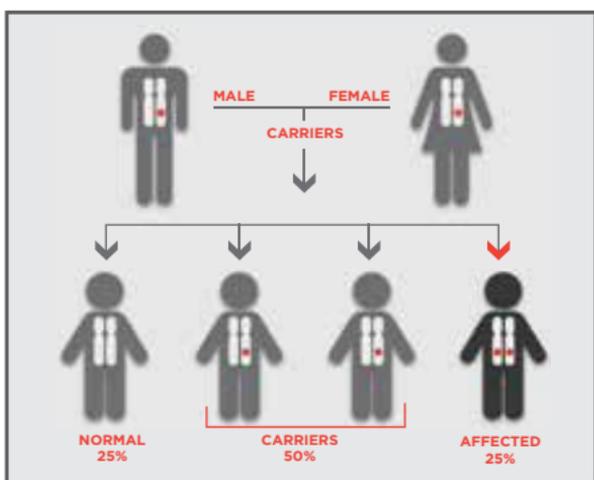
EvolveGene® screens for both Autosomal Recessive Disorders and X Linked Disorders. Autosomal recessive disorders impact genes on chromosome pairs 1 - 22. X-linked disorders impact the 23rd pair of chromosomes (i.e. the sex chromosomes), specifically the X chromosome. These disorders are inherited in different ways.

## X-Linked Inheritance: Female Carrier



- Due to mutations in genes on the X chromosome.
- If a mother is a carrier of an X Linked Disorder, her sons will have a 1 in 2 (50%) chance of inheriting the disease. Daughters have a 1 in 2 (50%) chance of being a carrier for the disorder and typically have no symptoms.

## Autosomal Recessive Inheritance: Both Parents Carriers



- Due to mutations in genes in any of the non-sex chromosomes (chromosomes 1-22).
- If you and your partner have a mutation in the same gene, there is a 1 in 4 (25%) chance your children could inherit the disease and a 1 in 2 (50%) chance they may also be a carrier.

## Society Guidelines and Recommendations

Many Medical Societies recommend carrier screening to be an integral part of any Pre-Pregnancy Standard Care.

Both the *American Congress of Obstetricians and Gynecologists (ACOG)* and the *American College of Medical Genetics (ACMG)* recommend all women have some form of genetic screening if they are of reproductive age.

Research has shown that patients, especially those undergoing fertility care, have used information from their carrier screening to make a clinical decision regarding their reproductive health.

## Reliable and Actionable Results: Giving You Options to Plan For Your Future

Evolve FamilyReady™ Carrier Screen provides information to help you plan and make informed decisions for the healthiest family possible.

**REF //** *Franasiak J, Olcha M, Bergh, et al. (2016) Expanded carrier screening in an infertile population: how often is clinical decision making affected? Genet Med. Epub.*

*Edwards J, Feldman G, Goldberg J, et al. (2015) Expanded carrier screening in reproductive medicine—points to consider: a joint statement of the American College of Medical Genetics and Genomics, American College of Obstetricians and Gynecologists, National Society of Genetic Counselors, Perinatal Quality Foundation, and Society for Maternal-Fetal Medicine. Obstet Gynecol. 125:653-662.*

*Benn P, Chapman A, Erickson K, et al. (2014) Obstetricians and gynecologists' practice and opinions of expanded carrier testing and noninvasive prenatal testing. Prenat Diagn. 34:145-152.*





# THE EVOLVE ADVANTAGE

## **Available Worldwide**

EvolveGene® has worldwide offices and operations offering the highest quality and most reliable customer service in the industry.

## **Advanced and Accurate Screening**

Genetic testing is performed at our state-of-the-art CLIA-licensed and CAP-certified clinical laboratory in the USA. It is our priority to provide the most accurate genetic screening with the highest detection rates and lowest false positive rates.

## **Leading Experts in Fertility and Genetics**

EvolveGene® was established by experts in the field of human reproductive medicine, fertility and genetics with a vision of preventive and personalized healthcare. Our scientific team brings together easily accessible knowledge and puts the power in your hands through advanced and accurate genetic screening.

## **Specialized and Superior Reproductive Screens**

Offering the most comprehensive pre-IVF, preconception and prenatal screens during any reproductive stage. Through the latest, specialized technologies, such as next-generation sequencing and in-depth chromosomal analysis, we deliver the most superior reproductive screening available.

## **Reporting Reliable Results**

EvolveGene® provides reliable results for globally prevalent and well-defined genetic issues. Our panels detect the most relevant genetic disorders and thoroughly researched genetic mutations to bring you one step closer to a healthy future.

**Comprehensive, Fast, and  
Straightforward Genetic Screening.**

# COMPLIMENTARY GENETIC COUNSELING

A complimentary and compassionate genetic consultation service is available at no additional cost for both physicians and patients for each Evolve FamilyReady™ Carrier Screen.

Our team of Board-Certified Genetic Counselors are ready to answer your questions to ensure genetic screening is as easy to follow as possible.

Genetic counseling services with EvolveGene® includes pre-test consultations and post-test counseling support for access to expert care throughout the genetic screening process.

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Our specialists are here for you.

**If you have any questions please email:**

Specialists@EvolveGene.com

**Chat at [www.EvolveGene.com](http://www.EvolveGene.com)**

Evolve FamilyReady™ Carrier Screen ...Just Makes Sense!

Better health for generations to come. One Simple test for you and your partner can help piece together the puzzle of your evolving family. Your results will give an insight of your family DNA.

**SCREEN TODAY. PROTECT TOMORROW.**

**Visit us at [www.EvolveGene.com](http://www.EvolveGene.com)**



# THE LEADER IN FERTILITY & REPRODUCTIVE GENETIC SCREENING

EvolveGene® was founded by world leaders in genetics and fertility discovery, with over 25 years of experience in human reproduction, genetic screening and ART research.

Our research team has published over 250 clinical papers in fertility and genetic research, with over 8,000 related citations, along with over 20 worldwide patents in reproductive technology.

Our goal is to provide our valued customers with the most comprehensive Pre-In Vitro Fertilization (IVF) Genetic Fertility Screening with viable healthcare solutions for your family and for future generations.

**To Learn More Visit: [www.EvolveGene.com](http://www.EvolveGene.com)**

**Follow EvolveGene® on Social Media**



## **Questions?**

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## **#1 in Genetic Fertility Screening**